

MINUTES
MURFREESBORO WATER AND SEWER BOARD
March 15, 2011

The Murfreesboro Water and Sewer Board met on Tuesday, March 15, 2011 in the conference room at Operations & Maintenance Building, 1725 S. Church Street. Present at the meeting were Board members: Mr. John Sant Amour, Mr. Clay Beach, Mr. Toby Gilley, Dr. Al Carter, Mr. Blake Smith and Ms. Sandra Trail. Also present were Joe Kirchner, Darren Gore, Valerie Smith, Michele Pinkston, Susan McGannon, Kenny Diehl, Susan Rucinski, Keith Carpenter, Mark Lee, Randy McCullough, Roger Haley, Mike Bernard, Jamie Reed, Scott Alpert, Scott Woodard, Curtis Robertson and Jim Crumley along with other members of the public.

The Consent Agenda was considered individually due to the Board having several questions on some of the items.

Bids were publicly opened on Wednesday, March 2, 2011 for the removal of water plant sludge from the east lagoon at the water treatment plant. Five (5) contractors submitted bids for the work. Two (2) of the five (5) bidders have previously performed the work. The bid tabulation is delineated below.

NAME	Lagoon Sludge Removal
Flat Rock Construction Co	\$41,295.00
Jacobs Construction LLC	\$93,500.00
Melton Construction	\$41,500.00
Merrell Brothers, Inc	\$388,410.00
Farrer Brothers Excavating	\$90,500.00
Lowest Bidder pending Board and Council Approval	

In the past this was an annual bid. When the Department switched coagulants from ferric sulfate to polyaluminum hydroxychloride, the amount of sludge has been reduced by around 50%, thereby only requiring sludge removal every other fiscal year. The lagoon to be cleaned has two years' of sludge accumulation. The cost previously to remove sludge was between \$27,000 per year and \$35,000 per year. This nets a savings of \$6,250 to \$14,250 per year. The Department has previously worked with Flat Rock Construction Company in removal of the lagoon sludge at the water treatment plant with no performance issues.

Staff recommended that the Board recommend to the City Council accepting the low bid from Flat Rock Construction Company in the amount of \$41,295. Funding will be from the 2011-12 operating budget.

Sandra Trail moved for approval to award the bid to Flat Rock Construction Company. Dr. Carter seconded the motion. The Board unanimously approved.

Bids were publicly opened on Wednesday, March 2, 2011 for contracts to supply chemicals for water and wastewater treatment during the 2011-2012 fiscal year. Twenty-three (23) vendors submitted bids for various treatment chemicals.

Chemical	Low Responsible Bidder	Unit Price	Estimated Annual Costs
CaNO ₃ (Bioxide)	F2 Industries	0.1639/lb (2.00/gal)	\$60,000
Calcium Oxide (Lime)	Carmeuse	0.076/lb	\$120,200
Calcium Thiosulfate (BSP Captor)	American Development Corp	0.505/lb	\$9,000
Carbon Dioxide	Continental Carbonic	0.065/lb	\$700
Citric Acid	Brenntag	6.82/gal	\$6,000
Fluorosilicic Acid (Fluoride)	DYCHO	0.28/lb	\$38,800
Phosphate (Under evaluation)	F2	0.489/lb	\$26,200
Polyaluminum Hydroxychloride (Hyper Ion)	General Chemical	0.27/lb	\$28,900
Polyelectrolyte Coagulant Aid Liquid Cat Polymer	NALCO	0.75/lb	\$25,400
Polyelectrolyte Coagulant Dry Polymer	BASF	2.17/lb	\$167,100
Sodium Carbonate (Soda Ash)	Industrial Chemical	0.2175/lb	\$300
Sodium Chloride (Salt)	DYCHO	0.0807/lb	\$38,500
Sodium Hydroxide Bulk Liquid	UNIVAR	1.1682/gal	\$9,300
Sodium Hydroxide Tote Liquid	American Development Corp	0.20/lb	\$4,400
Sodium Hypochlorite 12.5%	Brenntag	0.74/gal	\$96,200
Sodium Permanganate 20%	American Development Corp	0.724/lb	\$160,900
Estimated Annual Chemical Expense			\$791,900

Staff has completed evaluation of the bids and the lowest bid for all chemicals, except the coagulant and phosphate, meets or exceeds the standards as set forth in the invitation to bid. The bid by Kemira for the coagulant did not meet specifications in the ITB. The low bid that meets or exceeds the standards as set forth in the invitation to bid is from General Chemical for Hyperlon (Polyaluminum Hydroxychloride). Staff began using the coagulant Hyper Ion 4090 in July of 2009 when the membrane filter system was installed. Cost savings of this new coagulant over the past year and a half are over \$70,000/year in chemical costs and over \$6,000/year in sludge removal from the previous coagulant ferric sulfate. General Chemical is the current supplier of the coagulant Hyper Ion 4090. The bids for phosphate from Simply Aquatics and Solvay North America do not meet or exceed the standards as set

forth in the invitation to bid. Staff is currently evaluating the bid from F2 Industries for the phosphate at annual estimated cost of \$26,200. Approval of this bid is subject to the final evaluation. Contract times for all chemicals will begin July 1, 2011 for a period of one (1) year. Each contract may be extended for three additional one (1) year periods with approval of the vendor and City.

Staff recommended the Water and Sewer Board recommend to the City Council approving the lowest responsible and responsive bids for all chemicals to include the polymer upon staff's evaluation.

Clay Beach made a motion to accept the lowest bids as presented. Blake Smith seconded. The motion was unanimously passed.

The Board considered bids for the removal of trees along a section of the Greenway. Water and Sewer staff has coordinated with the City's Urban Environmental Department as well as the Parks and Recreation Department concerning a potential safety hazard to the public using a section of Greenway that has yet to be opened to the public. Approximately ninety (90) trees, ranging in size, have been deemed injured beyond recovery as a result of the Southwest Interceptor sewer constructed between 2006 and 2007. The Department has conceded that the sewer construction was the probable cause of the wounded trees, and agrees with the recommendation of Ms. Cynthia Holloway, City Horticulturist, Urban Environmental Department, that removal of these trees is critical to eliminate a potential hazard to the public using the greenway trail. Bids were received Monday, March 7, 2011 from four (4) bidders to remove the trees. The following table summarizes the bid results for the referenced project:

Bidders	Bid Amount
Curl Construction	\$31,500
Cooks Tree & Landscaping	\$38,500
Giving Tree LLC	\$40,000
A.J.'s Tree Service	\$42,800

The funding of this project was requested to come from the Water and Sewer working capital Reserve Account.

Urban Environmental was not satisfied with Curl Construction as a responsive bidder, so Staff recommended the Water and Sewer Board recommend to the City Council approving the bid to the lowest responsible and responsive bidder as recommended by the Urban Environmental Department.

After discussion regarding the qualifications of the companies bidding and discussion from Attorney Susan McGannon regarding liability, Clay Beach made a motion to recommend approving the bid as directed. Toby Gilley seconded the motion. The Board unanimously approved subject to qualifications of the bidder.

The Board considered bids for sanitary sewer rehab/replacement of Stones River Interceptor and Lytle Creek Crossing. Staff has solicited bids for three (3) self-contained projects bundled into one (1) bid package that were beyond the capability of our Operations and Maintenance Division to construct.

The purpose of these projects is to eliminate sources of Infiltration and Inflow (I/I) as well as repair to an aerial sewer crossing over Lytle Creek at Old Salem Road that has been structurally compromised.

Bids were received on March 15, 2011 as follows:

Contractor	Project I	Project II	Project III	Total
Cleary Construction	\$187,989.00	\$38,341.50	\$63,024.00	\$289,354.50
Williamson Construction	\$217,269.00	\$13,986.85	\$65,308.00	\$296,563.85
Scott & Ritter, Inc.	\$219,400.20	\$23,390.89	\$72,587.15	\$315,378.24
Rollins Excavating Co.	\$205,857.00	\$16,208.00	\$106,608.00	\$328,745.00
W & O Construction Co.	\$212,429.50	\$50,667.95	\$76,761.00	\$339,858.45
CFW, Inc.	\$234,624.00	\$27,906.48	\$109,346.00	\$371,876.48
Curl Const. & Excavating	\$231,313.00	\$30,853.80	\$120,793.00	\$382,959.80
Hawkins & Price, LLC	\$265,971.85	\$21,814.41	\$110,238.40	\$398,024.66
Charles DeWeese Construction	\$300,242.60	\$49,193.09	\$81,953.70	\$431,389.39
KBJ Construction, LLC	\$283,153.00	\$48,971.60	\$130,195.50	\$462,320.10
Civil Constructors	\$331,314.70	\$39,946.20	\$142,715.90	\$513,976.80

The bid opening date was established prior to the March Board meeting being moved a week ahead of it's normally scheduled time, or March 22nd.

Staff presented the Bid Tabulation for all three projects. The purpose of these projects is to eliminate sources of Infiltration and Inflow (I/I) as well as repair an aerial sewer crossing over Lytle Creek that has been structurally compromised. Cleary Construction of Tompkinsville, KY was the apparent low bidder. Huddleston Steele is working on checking references for Cleary Construction. Staff requested that upon favorable review of the contractor by Huddleston-Steele, of their previous experience, adequate qualifications and subject to legal review, the Board approve the low bid amount and recommend to City Council awarding the project to the apparent low bidder.

Staff requested that approval be given by the Board for the minimum bid of \$289,354.50. Funding for this project will be coming from the Water and Sewer working capital reserve account. The estimated amount for this project is \$450,000.

Sandra Trail made a motion that approval be given. Clay Beach seconded. The Board unanimously approved.

The Board considered Change Order No. 1 for the Lower Lytle Creek Interceptor. Smith Seckman Reid, Inc. recommended a Construction Change Order regarding allowing Garney Construction, Inc. to reduce the diameter of the tunnels under US231 (Church St.) and the spur track on CSX railroad from a 72" bore to a 54" bore on the referenced project. The Change Order also recommended extending the US231 (Church St.) boring an additional ten (10) linear feet. Approving this change order would allow for a total credit to the Department in the amount of (\$39,200). Therefore, Staff recommended the Board recommend to City Council approving the change order.

The change is summarized below:

Deduct for Tunnel/Bore under Church Street	80 feet @ (\$420) =	(\$33,600)
Deduct for tunnel/Bore under CSX	80 feet @ (\$380) =	(\$30,400)
Add for extension	10 feet @ \$2,480 =	<u>\$24,800</u>
Total Credit to Contract		\$39,200

After discussion Toby Gilley made a motion to accept the Change Order as presented. Clay Beach seconded. The Board unanimously approved.

The Board considered the Minutes from the February 11, 2011 meeting. The Minutes were unanimously approved as submitted.

The Board next considered a request to proceed with public advertisement and bids for the replacement of the Mercury Blvd. pump station.

Over the past several months, it has become apparent to Water and Sewer staff that Sewage Pump Station #31 on Mercury Boulevard has come to the end of its useful service life. The pump station has had five (5) malfunctions in the past nine (9) months. The malfunctions occurred on May 26, 2010, November 26, 2010, January 11, 2011, January 13, 2011, and February 23, 2011. The station is getting clogged with hand towels. For some reason, an exorbitant amount of hand towels are being flushed into the sewer system and causing Pump Station #31 to clog and no longer function properly. Staff has hung about 250 “door hangers” in the area feeding into the station to educate/alert the public as to the problem and request that they discontinue flushing the hand towels. It does not appear that this has had an effect on the hand towels being flushed into the sewer the past few weeks. While the station appears to have handled the pumping of the towels in the past, it no longer processes this waste stream in a consistent manner. Therefore, Staff believes the ultimate solution is to replace the entire station with submersible grinder pumps that are a specialized pump that can “chop” the towels into a finer emulsification so that clogging no longer occurs. Staff estimated the total replacement costs to be somewhere in the \$85,000 range.

Staff requested the Board allow the Department to advertise and solicit bids for the replacement of this pump station. This replacement is not a budgeted item, and therefore the funding would come from the Department’s working capital reserve account.

No action was required; however, Staff felt it was something that needs to be done to not violate our NPDES permit.

The Board heard from Scott Alpert, representative of Hazen & Sawyer, South Carolina and Scott Woodard, representative of Hazen & Sawyer’s Nashville office, with an overview and summary of the Wastewater Treatment Capacity and Effluent Disposal Study. A copy of the presentation giving the development of alternatives was provided at the Board Meeting. On April 7, 2011 the Study Committee, consisting of Joe Kirchner, Valerie Smith, Jim Crumley, Chris Griffith and Blake Smith will meet to

finalize the remaining technical memorandums and alternatives. A meeting has been scheduled with the Committee, Hazen and Sawyer and the Board on April 22nd at 11:30 am to review and discuss the final draft report. Prior to the meeting, the complete report will be provided to the Board to allow time for review prior to the April 22nd date. During this review period, it is recommended questions be mailed in to help prepare for the meeting. They will be forwarded to Hazen and Sawyer to answer and then sent to the Board. There will be an opportunity for additional questions at the meeting.

The Study includes seven major elements presented in technical memorandums prepared by Hazen and Sawyer as follows:

- TM No. 1 – Flow Analysis and Needs Assessment
- TM No. 2 – Regulatory Analysis
- TM No. 3 – Evaluation of Treatment Technologies
- TM No. 4 – Effluent Disposal Options
- TM No. 5 – Centralized and Decentralized Treatment Alternatives
- TM No. 6 – Collection System Evaluation
- TM No. 7 – Capital Improvement Recommendations

The Board considered revisions to Policy CS-01, Disconnecting Service for Nonpayment or Returned Payments.

At the February 22, 2011 meeting the Board discussed the subject Policy and the amount of time given a customer to pay a bill before service being discontinued for nonpayment. The Board asked staff to bring back a proposal allowing 30 days for payment before a customer is disconnected thus increasing the number of days between the mailing of the bills and the date service is disconnected. The Board requested that Staff have further information and a proposal for Board action at the next meeting.

With the present schedule and policy a customer has 26 to 30 days before service is subject to being disconnected. The “Late Fee” is applied 10 days or more after the mail date of the bill. The date in which the service will be disconnected is printed in red text in the “Important Information” box. Presently, the customer is subject to being disconnected prior to receiving a bill for the next month. With the proposed schedule and revised Policy, the customer will receive approximately 35 to 40 days from the date a bill is mailed before being subject to being disconnected for nonpayment for charges from the previous month. The customer will receive a bill for the next month, “Current Charges”, after a month for which payment has not been received with a “Balance Forward/Arrears” plainly shown on the bill. In the “Important Information” the date the service will be disconnected for nonpayment of any “Balance Forward/Arrears” will be on the bill in red text. The “Disconnect Date” for nonpayment of “Balance Forward/Arrears” is scheduled to be generally 2 to 3 days before the current bill “Due Date” per a schedule provided the Board in the agenda materials.

A customer will be subject to being disconnected for nonpayment for a “Balance Forward/Arrears” amount greater than \$25 (past due 31 days or more). The \$25 allowance will prevent a customer from being disconnected for payment of the “Net Amount Due” after the “Late Fee” (which

should be less than \$25) is applied for the bill for which no payment was received causing a “Balance Forward/Arrears” for the late fee. If disconnected, the “Balance Forward/Arrears” must be paid in full or arrangements made for payment before restoring service. “Current Charges” will be due on the “Due Date” on the bill. The customer will not be required to pay the “Current Charges” to restore service. The “Late Fee” for the “Current Charges” will be applied the day after the due date of the “Current Charges”.

Policy and Procedure CS-01 as revised follows:



Policy and Procedure CS-01	Date :Revised March 15, 2011
Director:	
Subject: Disconnecting Service for Nonpayment or Returned Payments	

Section 33-3 of the Murfreesboro City Code authorizes the Water and Sewer Department (Department) to “cut off and disconnect water from the premises of the person owning or controlling the property to which such bill relates”. It shall be presumed water service has been “cut off and disconnected” if an employee of the Department has been dispatched to the premises for the purpose of disconnecting service. It further states “The water shall remain cut off and disconnected from such premises until such water bill shall be paid.” The water service is also subject to being cut off and disconnected if a Return Reference Payment (RRP) is received from any bank for any reason. Service discontinued shall also mean “Cut off and disconnected”.

All accounts that have a balance of \$25.00 or more in arrears for more than 30 days will be subject to service being discontinued for nonpayment. For premises which service has been discontinued a reconnection fee shall be paid, in addition to the outstanding balance, to restore service. The reconnection fee shall be in an amount as may be established by the Water and Sewer board and City Council. All other fees that may be applicable as permitted by the Murfreesboro City Code shall also apply.

Accounts for which service has been discontinued for nonpayment must remain off until service is restored by Department personnel or an authorized representative.

1. Where it has been determined there has been meter tampering to illegally restore service, additional fees may be added to the account for each illegal reconnection. If a person damages any Department equipment in an attempt to restore service, that person shall also be required to pay all costs of repairing or replacing such equipment.
2. If the customer fails to make payment of an extension water service will be discontinued for nonpayment and applicable fees shall be added to the account.

Accounts that have a Return Reference Payment or RRP (return check, bank draft, check free, electronic file transfer, or money order) that has not been satisfied pursuant to the Return Check, Money

Order, EFT, Checkfree and ACH Policy (Policy) will be disconnected for nonpayment. Service may be discontinued seven (7) days after the return payment letter is mailed.

1. The water and sewer service may be discontinued for the service address related to the RRP for nonpayment of an outstanding RRP.
2. Until the full amount of the return payment is received, including applicable fees, service will not be restored.
3. If a RRP is issued by someone other than the customer of record but the RRP was posted to the account, the customer of record and the corresponding service address will be responsible for satisfying the terms of the return payment Policy CS-02.

END OF POLICY

Dr. Carter made a motion to accept the revisions. Toby Gilley seconded. The motion was unanimously approved.

The Board was given the Draft 2010 Annual Water Quality Report for information.

The 2010 Annual Water Quality Report is complete and available for review. The purpose of this report is to inform our customers of their water quality and to meet federal and state regulatory requirements. In accordance with the Environmental Protection Agency rules under 40 CFR Part 141.151 Subpart O and the TDEC regulation 1200-5-1-.35, we must deliver a consumer confidence report (annual water quality report) to all customers no later than July 1st with the water quality results of the previous calendar year.

A draft copy of the water quality report was given to the Board for review prior to printing and mailing to our customers. This report is a requirement of the Federal and State Law. The report is scheduled for mailing with the billing cycles starting in late April and will reach all customers by mid June. It is mailed to all customers in the Department's customer service database and those non-duplicates in the Murfreesboro Electric Department's customer service database. This is to ensure that everyone that receives water from the Department, directly or indirectly, receives a report. Staff reported there is one area that may be questioned by our customers. On the second page, bottom right side under the photo of a glass of water. The paragraph starts with "Elevated levels of lead..." This is required language for all annual water quality reports. On page four, the table, note (3) states that we had no households of the thirty sampled to exceed the action level for lead. Nevertheless we are required to put this statement verbatim into the report. We did not have any violations for 2010. In addition to mailing the annual water quality report, the report will be placed on the City's website and copies located at the Linebaugh Library, the Administration building and other locations in the City.

Staff presented the January, 2011 YTD Financial Report for the Board's review.

Under Other Business, Staff recommended a sole source purchase of a Leica GS15 GNSS All on the Pole Global Positioning System (GPS) Receiver for \$27,787.50. The primary purpose for the sole

source of this unit is due to the fact that the Department has purchased all prior units from Leica and staff is trained in the use of this equipment. Additionally, the Reference Station located at the Department's Operations and Maintenance facility is set up to transmit to these receivers and would require modification should another manufacturer's receiver be used. The older Leica units will still be utilized and can be salvaged for certain components common with the new receiver should they cease to function properly.

Therefore, Staff recommended that the Board recommend to City Council purchase of the Leica GPS Receiver in the amount of \$27,787.50, funding coming from the stormwater operating budget.

Clay Beach made a motion to accept the purchase. Toby Gilley seconded. The motion was unanimously passed.

Murfreesboro Water and Sewer Department Director Joe Kirchner, was recently selected Government Engineer of the Year by the Middle Tennessee Chapter of the Tennessee Society of Professional Engineers.

There being no further business, the meeting was adjourned.

John Sant Amour, Chairman